

## **FY02-03 International Coral Grants Report**

The coral reefs of the world are at a 'fork in the road'..... The rate of damage to coral reef resources is increasing, but is counteracted by an increase in conservation efforts.

*Status of Coral Reefs of the World 2002*

### **Introduction:**

NOAA's Coral Reef Conservation Grant Program launched a new international coral reef program in 2002, pursuant to the Coral Reef Conservation Act of 2000. During Fiscal Years 2002-2003, the International Coral Reef Conservation Grant Program invested \$600,000 in 18 projects at non-U.S. sites that have leveraged \$593,019 in matching funds. Most of the awards were granted in the Program's priority regions, Southeast Asia and the Caribbean. Two-thirds of the recipients were non-governmental organizations and half of these were local Community-based non-governmental organizations.

The National Coral Reef Action Strategy (June 2002) called on the U.S. to "reduce threats to international coral reefs". The Strategy ranked coastal development, coastal pollution, sedimentation and runoff as high threats to international reefs. Through the grants program, NOAA is supporting activities that:

- Demonstrate best management practices to reduce and control run-off to near shore coral reef ecosystems in the Caribbean;
- Implement management effectiveness programs to enhance adaptive management of marine protected areas at individual sites as well as contributed to the development and implementation of new guidelines for MPA practitioners; and
- Promote use of socioeconomic assessments in coastal management at individual sites as well as promote implementation of new regional guidelines to help managers better understand the communities whose activities affect marine protected areas and who are affected by MPA management decisions.

The Strategy identified habitat destruction, over-fishing and destructive fishing practices as high threats to international reefs. Through the grants program, NOAA is encouraging:

- Regional approaches to promote marine reserves in the Caribbean and Southeast Asia.

The Strategy ranked global warming and climate change as a high threat to international reefs. Through the grants program, NOAA supported:

- Community-based projects to expand biophysical monitoring and promote public awareness.

The International coral conservation projects have made substantial contributions to both long term international coral policy development and in-situ conservation.

# Fiscal Years 2002-2003 International Coral Projects



A. Mexico: 1 Management Effectiveness\*; 1 Marine Reserve\*

B. Belize: 2 ME\*; 2 Marine Reserves\*; 1 Soc -Econ

C. Honduras: 1 Marine Reserve\*

D. Bahamas: 2 Marine Reserve projects\*

E. U.S.V.I and B.V.I.: 1 Marine Reserve\*

F. St. Lucia: 1 Watershed

G. East Africa: 1 Coral Reef Monitoring\*

H. Thailand: 1 Socioeconomic

I. Indonesia: 1 Socioeconomic, 1 Management Effectiveness, and 1 Monitoring

J. Vietnam: 1 MR\*

K. Philippines: 1 MR\* and 2 Soc -Econ

L. Federated States of Micronesia: 1 ME project

M. Solomon Islands: 1 Coral Monitoring

\* Represents regional projects

### **FY 02-03 Program**

The availability of grants was published in the Federal Register on Friday, April 19, 2002 (Vol. 67, No.76, pp. 19396-19415). A second opportunity for funding was available as published in the Federal Register on Friday, January 17, 2003 (Vol. 68, No.12, pp. 2513-2526). The following tables summarize the general results of both competitive processes:

**Table 1. FY2002-2003 Competition**

<b>Grant Category</b>	<b>Applications received</b>	<b>Awards</b>
<b>Monitoring of Coral Reef Ecosystems ('02 only)</b>	31	3
<b>Caribbean Watershed Practices ('03 only)</b>	2	1
<b>Management Effectiveness of MPA's</b>	17	4
<b>Marine Reserve Initiatives</b>	10	5
<b>Socioeconomic Monitoring</b>	8	5
<b>Total projects*</b>	74	18
<b>Total requested</b>	\$2,984,866	
<b>Total Awarded</b>	\$600,000	
<b>Total Match</b>	\$593,919	

\* Includes disqualified proposals that did not meet eligibility criteria

The number of applications for FY03 decreased because the Watershed category, which drew less proposals, was substituted for the Monitoring category.

The following conclusions are drawn from the figures in Appendix A:

- Most of the awards were granted in the Program's priority regions, Southeast Asia and the Caribbean (Figure 1).
- There was no significant difference in number of awards per category in both years (See Figure 2 for amount of funds per category for both years).
- Overall match for both years was 1:1 (Figure 3).
- Two-thirds of the recipients were non-governmental organizations and half of these were local Community-based non-governmental organizations (Figure 4).

Graphs 1 and 2 (See Appendix B) demonstrate international coral project breakdown by country and amount of funds by country. The countries that received multiple awards as well as the most funding were Belize, Indonesia, and Philippines.

During FY 2002-2003, the International Grant program had five objectives:

- 1. Promote Monitoring of Coral Ecosystems:** In FY02, three community-based projects in Indonesia, East Africa, and Solomon Islands focused on expanding biophysical monitoring networks that contribute to understanding the status of coral reefs, promote public awareness, and contribute to local management objectives. Emphasis was placed on community participation in monitoring programs, communication of results to policy makers, and commitment to make data available to the GCRMN Data Centre at the International Centre for Living Aquatic Resources.
- 2. Enhance Management Effectiveness of Marine Protected Areas (MPAs):** NOAA has launched strategic partnerships with the World Conservation Union's (IUCN) World Commission on Protected Areas (WCPA) and World Wildlife Fund (WWF) International to improve the management of MPAs by providing managers, planners, and other decision-makers with methods for assessing the effectiveness of MPA sites and national systems of MPAs. During this period, NOAA and its partners (above) published How is Your MPA Doing? A Guidebook of Natural and Social Indicators for Evaluating Marine Protected Area Management Effectiveness. In FY02, two funded projects in Indonesia and Mexico focused on assessing the effectiveness of management at coral MPAs that apply and test the approach and indicators developed therein. In FY 03, the program supported two projects in the Federated States of Micronesia and Belize that conducted assessments of management effectiveness in order to strengthen and achieve the site goals and objectives.
- 3. Encourage Regional Approaches to Further Marine Reserves in the Caribbean and Southeast Asia:** The Program funded activities that supported the development of networks of marine reserves in the Caribbean and Southeast Asia. These regions were selected in part because of the substantial interest and existing experience with marine reserves. Moreover, each region was involved in creating regional strategies to conserve marine biodiversity through networks of marine reserves. In FY02, the Program funded two regional-level projects in the Meso American Reef region and the Bahamas that promoted the design and implementation of no-take marine reserves and awareness programs on the value of marine reserves for government officials and policy makers throughout the region. In FY03, the Program funded three regional projects in Vietnam and Philippines, Bahamas and Belize, and U.S. and British Virgin Islands that involved regional level activities benefiting existing or proposed marine reserve networks of two or more sites.
- 4. Promote the Use of Socio-Economic Assessments in Marine Protected Areas:** Recognizing the importance of the human dimension, the GCRMN, in partnership with NOAA, WCPA, and the Australian Institute of Marine Science (AIMS), published The Socioeconomic Manual for Coral Reef Management, a guide to conducting socioeconomic assessments of reef user groups. Moreover, each region collaborated with NOAA in developing Socioeconomic Monitoring Manuals for practitioners. In FY02, IPO funded two projects that established socioeconomic monitoring programs at MPA sites in the Philippines. These monitoring programs were intended to help

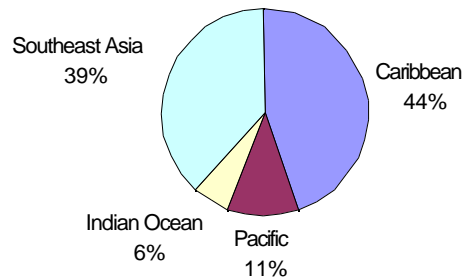
managers better understand the communities whose activities affect the MPA and who are affected by MPA management decisions. The socioeconomic information from the monitoring programs is, therefore, intended to be used in MPA management. In FY03, Socioeconomic activities entered a new phase to fund three projects in Belize, Indonesia, and Thailand that supported implementation of regional plans for Socio Economic monitoring programs in the Wider Caribbean and Southeast Asia.

**5. Promote Watershed Management in Wider Caribbean Small Island Communities.**

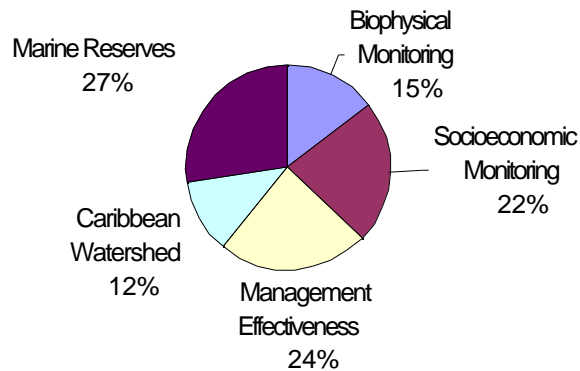
Under this new category in FY03, the program funded one project that implements best management practices to reduce and control runoff to near shore coral reef ecosystems in the Wider Caribbean (St. Lucia), assesses effectiveness of these management practices, engages stakeholders and government agencies in collaborative partnerships to implement these practices, and recommends a set of best management practices that can be applied to small island Caribbean systems. This category supported NOAA's involvement in the White Water to Blue Water Initiative in the Caribbean and will give an opportunity to develop best management practices for watershed management that could be shared through the White Water to Blue Water Initiative March 2004 meeting in Miami.

## APPENDIX A

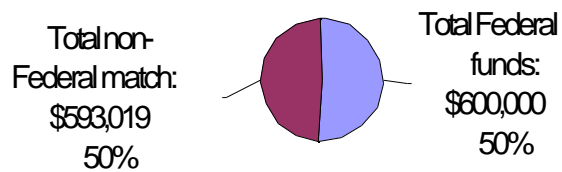
**Figure 1. FY02-03 International Coral Projects by Region**



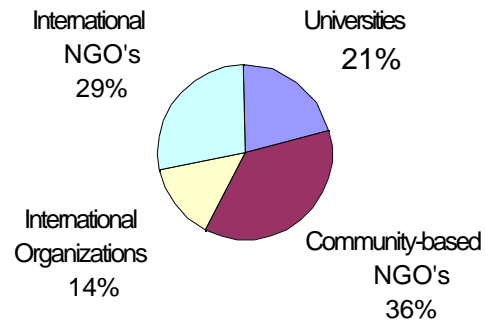
**Figure 2. FY02-03 International Coral Funds by Category**



**Figure 3. International Coral Project Federal and Match Funds**

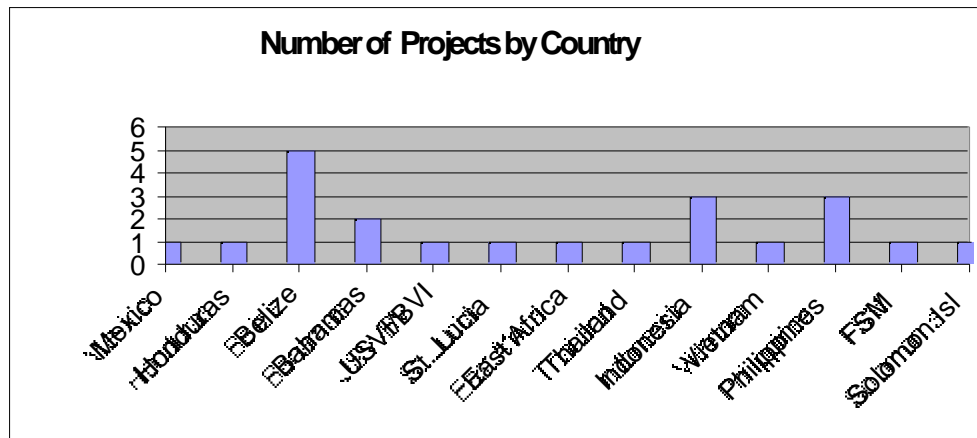


**Figure 4. Recipients by Category**

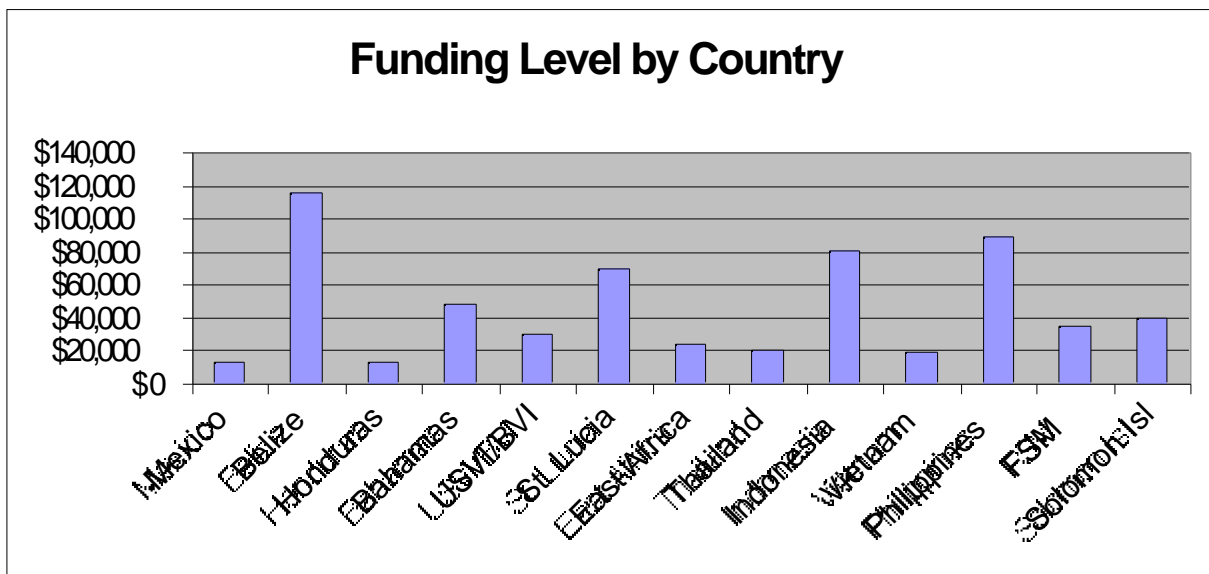


## APPENDIX B

Graph 1



Graph 2





## **APPENDIX C**

### **PROJECT DESCRIPTIONS**

#### **International Coral Reef Conservation Grants – FY02**

##### **MANAGEMENT EFFECTIVENESS**

1. Grantee: Center for Marine and Coastal Resource Studies, Gedung Marine Center  
Description: This project is pilot testing the recently developed World Commission on Protected Area management effectiveness guidelines and indicators at two Indonesian sites, Bunaken National Park in North Sulawesi and Sebesi Island Marine Sanctuary in South Sumatra. It is investigating the roles and limitations of scientific and participatory processes in the design and implementation of MPA management evaluations. The project is also contributing to and improving the existing tools for measuring management effectiveness of MPAs by developing some guidelines for how to incorporate both science and participation into management evaluations. Stakeholder awareness and the capacity to manage at the two tropical MPAs will be increased.

2. Grantee: World Wildlife Fund  
Description: This project is testing the World Commission on Protected Areas/World Wildlife Fund methodology for assessing management effectiveness in three Marine Protected Areas in the Meso American coral reef ecoregion. World Wildlife Fund is testing the usefulness and applicability of the methodology and will determine if the indicators provide the key elements to assess MPA management effectiveness. The selected sites for the project are: Mexico's Sian Ka'an Biosphere Reserve and Banco Chinchorro Biosphere Reserve, and Hol Chan Marine Reserve in Belize. The results will be used to adjust and redirect the management strategies of the areas. The results will be shared with WCPA, WWF and ICRAN to improve upon the guidelines and disseminate the experience.

##### **CORAL REEF MONITORING**

3. Grantee: Yayasan Adi Citra Lestari  
Description: This project is conducting coral reef survey and monitoring at eight sites in Central Sulawesi, Indonesia giving priority to sites in MPA's or proposed MPA's. Current and new volunteers are using Reef Check and Manta Tow monitoring methodologies and final data will be submitted to the Global Coral Reef Monitoring Network and to the local government for management purposes.

4. Grantee: World Wildlife Fund  
Description: This project is coordinating the development of a national coral reef monitoring network for Solomon Islands. The key to success will be the creation of a stakeholder coral reef task force as well as capacity building of Solomon Islanders in Global Coral Reef Monitoring Network participatory monitoring techniques. Data is being gathered from representative sites around the country, collated in a central database, distributed to key stakeholders, and made available to marine management practitioners and researchers.

5. Grantee: Reef Check Foundation Europe  
Description: Reef Check Foundation-Europe is establishing a Reef Check coral reef monitoring team in Kenya and strengthening the existing team in Tanzania by training and certifying Reef Check trainers who will continue coral reef monitoring activities with new volunteers in their respective areas. The teams are conducting 20 reef surveys during the project year and will submit the final data to the Global Coral Reef Monitoring Network. Results will also be disseminated to local and regional managers.

## **MARINE RESERVES**

6. Grantee: Wildlife Conservation Society

Description: The Wildlife Conservation Society is providing the government of Bahamas scientific and technical assistance that will result in the full establishment of the first five no-take marine reserves of the government's planned network. WCS is providing an enhanced program of scientific and technical assistance and support to the Department of Fisheries. In addition, this project is increasing the capacity of the Fisheries Department to plan, implement, and manage the developing network.

7. Grantee: World Wildlife Fund

Description: This project is focusing on the development of a region-specific public awareness campaign, in English and Spanish, promoting the benefits of "no-take zones" within marine protected areas in the Mesoamerican reef system. The project is targeting key stakeholders, for example, fishers and policy-makers and is consisting of three phases: research and development of materials, review of materials and development of strategy (focus group meetings) and, implementation of at least three focal seminars.

## **SOCIOECONOMIC MONITORING**

8. Grantee: Coastal Dynamics Foundation

Description: Coastal Dynamics Foundation is providing coral reef and socioeconomic assessment and monitoring in Maribago Marine Park (Lapu Lapu City, Philippines) which contains 85 hectares of highly accessible, valuable and diverse coral reefs. This integrated monitoring approach will strengthen local reef management and monitoring capabilities.

9. Grantee: Marine & Environment Resources Foundation

Description: This project will make the reef monitoring systems used by the Philippines' National Integrated Protected Areas System (NIPAS) more compatible with those of mainstream Global Coral Reef Monitoring Network and Reef Check monitoring systems. Activities are upgrading the skills of Philippines' NIPAS field personnel and Sabah Parks personnel in biophysical and basic socioeconomic reef monitoring and collecting data of one high priority Philippine NIPAS sites. The project will set-up a feedback system wherein monitoring data is used in management.

## **International Coral Reef Conservation Grants – FY03**

### **MANAGEMENT EFFECTIVENESS**

1. Grantee: Toledo Institute of Development and Environment (TIDE)

Description: The Port Honduras Marine Reserve is a 500 square mile reserve in Belize, Central America, that is integral to the coral reef system of Belize and has been managed by the Toledo Institute for Development and Environment (TIDE) for three years. The project will measure the success of the management program in terms of preservation of coral reef ecosystems and socioeconomic factors, and determine how well the Reserve is meeting the stated objectives of its management plan. The project will include prioritizing project goals and objectives as well as the development of indicators to measure project success.

2. Grantee: University of Guam

Description: This project will assess the management effectiveness of two pilot Marine Protected Area sites in Kosrae, the Federated States of Micronesia (FSM): the Utwe-Walung Marine Park and the Trochus Sanctuary. In order to improve the management of FSM's MPAs, the collaborators will develop, refine, and test indicators of MPA effectiveness in conjunction with a larger international effort. Management effectiveness will be measured using a suite of biophysical, socioeconomic, and governance indicators appropriate to the local conditions and that influence the performance of Kosrae's MPAs. These indicators were

developed by the World Conservation Union's (IUCN) World Commission on Protected Areas (WCPA), NOAA and the World Wide Fund for Nature (WWF) in a joint initiative aimed at improving the management of MPAs.

## **MARINE RESERVES**

3. Grantee: International Marinelife Alliance

Description: Spawning areas have been detected in protected or designated protected areas in the Ha Long Bay region of Vietnam and the northern Palawan region of the Philippines. This project is designed to identify and characterize spawning aggregations and sites of two species groups, the humphead wrasse (a resident aggregating species), and various groupers (transient aggregating species that migrate to aggregation sites), at these two localities. Aggregations and sites will be characterized by relating standard measures of biological and physical parameters, and by mapping of sites. Local managers will be trained in these methods during the course of the project. The results of the project are intended to help formulate strategies that expand the level of protection afforded these species by strengthening management measures at these sites.

4. Grantee: Wildlife Conservation Society

Description: There is an increasing need for marine reserve managers to be able to demonstrate the effectiveness of their management programs. The Wildlife Conservation Society will facilitate the exchange of established monitoring protocols between Belize and the Bahamas, providing managers with comparisons of effectiveness, greater flexibility, and a wider range of options in implementing monitoring programs for the reserves under their jurisdiction. This will be conducted through a technical exchange program, training opportunities and development of a web-based information sharing system.

### **5. Collaborative NOS/Fisheries project:**

Grantee: The University of the Virgin Islands

Description: The project will focus on a collaborative effort between the United States Virgin Islands (USVI) and the British Virgin Islands (BVI) to collect and assimilate biological data on a critical habitat in the BVI with the creation of a Marine Protected Area (MPA) in mind. One component will focus on a scientific investigation of a large traditional red hind grouper (*Epinephalus guttatus*) spawning aggregation site in the British Virgin Islands, located on the Anegada Bank. The spatial area of the aggregation site will be determined as well as the density of spawners, sex ratio, size frequency, habitat type, benthic complexity, and fish community structure. In addition a tag and release program will be implemented. Data from the Anegada site will be compared to that from the MCD and the use of MPAs as a management technique assessed for the sustainability of a fisheries resource (red hind grouper).. With the near collapse of several fish stocks in the USVI and Puerto Rico and the proximity of under-exploited BVI fisheries, regional cooperation and management is an interest of managers of both the USVI and BVI.

## **SOCIOECONOMIC MONITORING**

6. Grantee: Wildlife Conservation Society

Description: This project will establish and implement a socioeconomic monitoring program for Belize's Glovers Reef Atoll which includes the Glovers Reef Marine Reserve. Benefits will include enhancement of existing conservation activities, awareness about future management efforts, and provision of a mechanism to balance conservation objectives with community needs and concerns over the long-term. A coastal socio-economic assessment and monitoring program will be conducted.

7. Grantee: Terangi: The Indonesian Coral Reef Foundation

Description: The Seribu Islands are a widespread archipelago within Jakarta Bay, Indonesia, which consists of 108 islands. The great number of stakeholders involved in managing and using

the resources of Seribu Islands creates an opportunity to collect necessary data that can be integrated into decision making processes that are beginning as the islands become a new district subject to decentralization. Terangi will conduct a socio-economic assessment to develop a demographic profile of the local community of the 108-island Seribu Archipelago and review benefits of MPA management for the community.

8. Grantee: UNESCO Bangkok Office

Description: The rapid development occurring along Thailand's Andaman coast over the past few decades has deprived many of the local and indigenous people from access to their traditional marine resources and curtailed their freedom of movement. This project will assist in developing a model for equitable governance for the sustained conservation of the natural and cultural diversity in the marine protected areas of the Andaman Sea. The project collaborators will create a balance between park conservation objectives and local needs and aspirations of indigenous people and communities living in and around, marine protected areas of the Andaman Sea. The project will conduct a socio-economic assessment with the Moken and Urak Lawoi communities to understand the socio-economic status, and to monitor overall impacts of management on livelihood.

### **WATERSHED MANAGEMENT**

9. Grantee: Organisation of Eastern Caribbean States

Description: Soufriere, St. Lucia, is the site of one of the most successful marine management initiatives in the Caribbean. The Soufriere Marine Management Area (SMMA) is managed by the Soufriere Marine Management Association and is established to secure the sustainable use of various resource. Although the site contains St. Lucia's best and most substantial reef system on the island, the area also receives sediment and other inputs from the Soufriere river that flows into the bay, posing a substantial threat to the reef systems. Since no equivalent management system is in place to address the threats posed to the reefs, this project will seek to establish a permanent interagency structure linked to the SMMA with the prime purpose of securing the necessary interventions in the Soufriere watershed. The aim will be to reduce the harmful inputs into the Soufriere Bay using the same community-focused and partnership approach as adopted by the SMMA. The project will seek to employ environmentally sound resource-use practices supported by a comprehensive public awareness and sensitization campaign.